

IC 734	State Form 37776														
Rev. 2 - 12											Contract No.	IR - 34937			
												Project No.	L 2302		
Copies to:											Report No.	2 of 4			
Div. of Construction											Designation No.	0900254			
District Engineer											Bridge File No.	265-10-9604			
Project Engineer											Site Manager No.	R125473500220			
File											Location	Salem Road over S.R. 265			
PRESTRESSED OR PRECAST CONCRETE STRUCTURAL MEMBERS															
Identification															
Producer:	8502 - Prestress Services Industries - 5501 Briar Hill Rd, Lexington, Kentucky 40516														
Producer's Part No.:	4N 54 48 IN										Type:	54" Bulb Tee Beams			
Length:	103' - 0"		Width:	48"		Height:	54"		Member No's:	MK506 -4					
	103' - 0"			48"			54"			MK502 -5					
	103' - 0"			48"			54"			MK505 -6					
Materials															
Strand															
Manufacturer:	American Spring Wire										Cert. Mill Test Reports Attached:	In Site Manager Attachments			
Size:	1/2 in.		Type:	270K Low Relax Oversize					Actual Steel Area:	0.1646 sq. in. (average)					
Reel No's:	015526-1		015526-5		015526-3		015526-8		015526-4		015634-5		015634-3		
	015634-4		015634-7		015634-1										
Reinforcing Steel															
Source	Nucor Jewett, TX					Source	ABC Peotone & Nucor Jackson					Source	Nucor Kankakee		
Size/Type	#3 Black					Size/Type	#4 Epoxy					Size/Type	#6 Black		
ID No.	1210765801					ID No.	1210513501					ID No.	1210450801		
Approval No.	J099802					Approval No.	approved					Approval No.	J989820		
Source	Nucor Kankakee					Source	ABC Peotone & Nucor Kankakee					Source	Ameri HigwayTech & Nucor Kankakee		
Size/Type	#4 Black					Size/Type	#4 Epoxy					Size/Type	#6 Epoxy (threaded one end)		
ID No.	1210550701					ID No.	1210420801					ID No.	1210385801		
Approval No.	J989820					Approval No.	J039994					Approval No.	J989958		
Cement															
Type:	III		Source:	Buzzi Unicem, Greencastle, IN					Approval No.:	W028369					
Coarse Aggregate															
Source:	Vulcan Materials, Richmond Quarry, KY										Gravel	Stone		X	
Size No:	91's (67's)		100% Passing 1" Screen		YES		Field Test & Report No.		APP SOURCE						
Source:	NA										Gravel	Stone			
Size No:			100% Passing 1" Screen				Field Test & Report No.								
Fine Aggregate															
Source:	Nugent Sand in Milton, KY					Size:	#23		Approval No.:	Q982070					
General Data (Each Bed)															
Prestressing															
No. of Strands, Straight	36		Draped	12		Gage Length	4429 ins. (e)		28800000 psi						
Specified Stress	NA psi		Spec. Load per Strand (P)	33,815 lbs.		Pre Load (Pi)	3,000 lbs.								
Losses & Type	LE=	0.25	DE=	0.125	ARA=	0.033	ETA=	0	Correction for Losses	267.58 lbs.					
Total Load per Strand	34,118 lbs.					(including correction for losses)									
Computed Elongation (e)	28.790 ins.		Elon.for Losses	0.15800 ins.		Total Elon. e _c	28.95 ins.								
Max. Elon. Obtained	29 1/4 ins.		Min. Elon. Obtained	27 3/4 ins.		Temp. While Tensioning	35 °F								
Assumed Temp. of Concrete at time of Pouring	55 °F		Length of Strand encased in Concrete	NA ins.											
Draped Strands Pulled at One End			Both Ends	YES		Date Tensioned	12/28/2012								
Maximum and Minimum Allowable Elongations															
(e _c - 5%) = 0.95 x e _c	28.948	x	0.95	=	27.50	or	27 4/8	ins. (min. elongation)							
(e _c + 5%) = 1.05 x e _c	28.948	x	1.05	=	30.40	or	30 3/8	ins. (max. elongation)							

Placing Reinforcing Steel (each member)											
Size	No. of Pcs.	Description	Size	No. of Pcs.	Description	Size	No. of Pcs.	Description	Size	No. of Pcs.	Description
#401 (E)	147	10'-6"									
#402 (E)	187	5'-6"									
#303 (B)	34	4'-7"									
#304 (B)	34	1'-6"									
#405 (B)	6	12'-4"									
#406 (E)	40	9'-9"									
#6 (B)	4	3'-4"									
#6 (B)	8	4'-3"									
#3 (B)	4	102' - 4"									
#6 (B)	4	102' - 4"									
Concrete											
Plant Furnishing Concrete: Prestress Services Industries - 5501 Briar Hill Rd., Lexington, Kentucky 40516											
Data from Batch Ticket ID: 3		Test No. 2 of 7		Yds ³ per load: 5							
Cement:	3670	lbs	734	lbs. cu. yd.	Date Poured:	12/28/2012			Pour No.:	2 of 4	
Coarse Agg.:	9260	lbs	1852	lbs. cu. yd.	Beam ID(s):	MK506 -4		MK502 -5	MK505 -6		
Light Wt. Agg.:	0	lbs	0	lbs. cu. yd.							
Fine Agg.:	5140	lbs	1028	lbs. cu. yd.	Slump:	7 3/4"	8"	7 3/4"	7 3/4"	7 3/4"	7 3/4"
Water:	92	gallons	18	gals. cu. yd.		7 3/4"					
Unit Weight:	19982	lbs	148	lbs. cu. Ft.	Air %:	6.8%	5.8%	5.4%	5.4%	5.1%	5.2%
Relative Yield	1.030					5.0%	5.2%				
Admixtures					Temperature °F:	64°	64°	70°	73°	67°	67°
Type	Air Entraining		35	oz	0.954	oz/100Lbs Cemeticitious			Certificate Attached		In Site Manager
Trademark	RSA-10				Manufacturer			Russtech			
Type	MultiRange WRA		440	oz	11.989	oz/100Lbs Cemeticitious			Certificate Attached		In Site Manager
Trademark	Superflow 2000 RM				Manufacturer			Russtech			
Type	Set Retarding WRA		37	oz	1.008	oz/100Lbs Cemeticitious			Certificate Attached		In Site Manager
Trademark	LCR-400R				Manufacturer			Russtech			
Test Cylinders											
Cyl. No.	Date Made		Date Broken		Age (days)		Strength, psi. (Top, Middle, Bottom)				
MK506 -4	12/28/2012		12/29/2012		1		T	7,109	M	6,790	B 6,667
MK506 -4	12/28/2012		1/18/2013		21		T	8,806	M	8,753	B 8,771
MK502 -5	12/28/2012		12/29/2012		1		T	7,179	M	6,790	B 7,109
MK502 -5	12/28/2012		1/18/2013		21		T	8,771	M	8,665	B 8,789
MK505 -6	12/28/2012		12/29/2012		1		T	7,321	M	7,303	B 7,179
MK505 -6	12/28/2012		1/18/2013		21		T	8,789	M	8,630	B 8,753
Place Tested: PSI QC in Lexington, KY Total No. Of Members in Structure: 12 Exterior 4 Interior 8											
Accepted Member Nos.	MK506 -4		MK502 -5		MK505 -6						
Yellow Card Nos.	47350224		47350225		47350226						
Rejected Member Nos.											
Elastomeric Bearings Certifications Attached					In Site Manager						
Remarks:											
Inspector: <i>Juan M. Martinez</i> Date: 1/29/2013											
Note:											
For Precast Prestressed Members, submit report for each bed. For Precast Members, submit report for each pour.											